

LISTING OF THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-35. (Cancelled)

36. (Previously presented) A coated object, comprising:

a substrate having at least one functional layer; and

at least one interlayer being arranged in said at least one functional layer, said at least one interlayer having a layer thickness of less than or equal to 10 nm interrupting the morphology of said at least one functional layer, and dividing said at least one functional layer in a plurality of partial layers,

wherein said at least one functional layer comprises a plurality of functional layers defining an alternating optical layer system, said alternating optical layer system comprising a high refractive index layer and a low refractive index layer, and

wherein said low refractive index layer is interrupted by a plurality of interlayers with a high refractive index.

37. (Currently amended) The coated object as claimed in claim [[34]] 36, wherein said high refractive index layer comprises one element selected from the group consisting of titanium oxide, titanium aluminum oxide, and zirconium oxide.

38. (Previously presented) The coated object as claimed in claim 36, wherein said high refractive index layer comprises one element selected from the group consisting of titanium oxide, titanium aluminum oxide, and zirconium oxide.

39. (Currently amended) The coated object as claimed in claim [[34]] 36, wherein said low refractive index layer comprises silicon oxide.

40. (Currently amended) The coated object as claimed in claim [[35]] 36, wherein said plurality of interlayers with a low refractive index comprise silicon oxide.

41. (Currently amended) The coated object as claimed in claim [[26]] 36, wherein said substrate comprises glass.

42. (Currently amended) The coated object as claimed in claim [[26]] 36, wherein the coated object is useable as an optical element selected from the group consisting of a reflector for digital projection, a lens for digital projection, a mirror for digital projection, an illumination means for digital projection, a reflector for stage, a lens for stage, an illumination means for stage, a reflector for architectural lighting, a lens for architectural lighting, an illumination means for architectural lighting, a prism for the UV wavelength region, a lens for the UV wavelength region, a mirror for the UV wavelength region, a reflector for the UV wavelength region, a filter for the UV wavelength region, an illumination means for the UV wavelength region, a prism for the IR wavelength region, a lens for the IR wavelength region, a mirror for the IR wavelength region, a reflector for the IR wavelength region, a filter for the IR wavelength region, an illumination means for the IR wavelength region, a display for monitors, and a display unit.

43. (Cancelled).

44. (Previously presented) A coated object, comprising:
a substrate having at least one functional layer; and
at least one interlayer being arranged in said at least one functional layer, said at least one interlayer having a layer thickness of less than or equal to 10 nm interrupting the morphology of said at least one functional layer, and dividing said at least one functional layer in a plurality of partial layers,

wherein said at least one functional layer is made from a metal and said at least one interlayer is made from a metal oxide, and

wherein said at least one functional layer comprises chromium and said at least one interlayer comprises chromium oxide.

45. (Previously presented) A coated object, comprising:
a substrate having at least one functional layer; and
at least one interlayer being arranged in said at least one functional layer, said at least one interlayer having a layer thickness of less than or equal to 10 nm interrupting the morphology of said at least one functional layer, and dividing said at least one functional layer in a plurality of partial layers,

wherein said at least one functional layer is made from a metal and said at least one interlayer is made from a metal oxide, and

wherein the coating object is useable as a carrier element for lithographic processes.

46-50. (Cancelled).

51. (Currently amended) The coated object as claimed in claim [[46]] 68, wherein said plurality of partial layers have a layer thickness in the range from 100 to 250 nm.

52. (Currently amended) The coated object as claimed in claim [[46]] 68, wherein said at least one interlayer has a layer thickness in the range from 0.3 to 10 nm.

53. (Currently amended) The coated object as claimed in claim [[46]] 68, wherein said at least one interlayer has a layer thickness in the range from 1 to 5 nm.

54. (Currently amended) The coated object as claimed in claim [[46]] 68, wherein said protective layer has a morphology with a plurality of columns which, on average, have a lateral extent of less than 1 μm .

55. (Currently amended) The coated object as claimed in claim [[46]] 68, wherein said protective layer has a morphology with a plurality of columns which, on average, have a lateral extent of less than 200 nm.

56. (Currently amended) The coated object as claimed in claim [[46]] 68, wherein said protective layer comprises silicon nitride.

57. (Currently amended) The coated object as claimed in claim [[46]] 68, wherein said protective layer comprises zirconium oxide in a thermally stable crystal phase.

58. (Currently amended) The coated object as claimed in claim [[46]] 68, wherein said at least one interlayer comprises one element selected from the group consisting of zirconium nitride, silicon oxide, and titanium aluminum oxide.

59. (Currently amended) The coated object as claimed in claim [[46]] 68, wherein said substrate comprises glass.

60. (Currently amended) The coated object as claimed in claim [[46]] 68, wherein the coated object is useable as a cooking plate for a cooking hob.

61-67. (Cancelled).

68. (Previously presented) A coated object, comprising:
a substrate having at least one protective functional layer, said at least one protective functional layer having a layer thickness between 100 and 20,000 nm, having a predominantly crystalline layer in a thermally stable crystal phase, and having at least one interlayer arranged therein, said at least one interlayer having a different morphology than said at least one protective functional layer, having a layer thickness less than or equal to 10 nm, and dividing said at least one protective functional layer in a plurality of partial layers so that said plurality of partial layers have a layer thickness between 30 and 500 nm, said at least one functional layer comprises at least one chloride and at least one element selected from the group consisting of an oxide, a nitride, a carbide, a selenide, a telluride, and a sulfide.

69. (Previously presented) A diffusion-inhibiting container, comprising:
a substrate;
a functional layer disposed on said substrate; and
an interlayer arranged in said functional layer, wherein said interlayer has a layer thickness of less than or equal to 10 nm, interrupts the morphology of said functional layer, and divides said functional layer in a plurality of partial layers.

Claims 70-76. (Cancelled).